

A Study of During Event "In Person" and Post Event "Online" Survey Methodologies: Is There A Best Method Sport Economic Impact Research?

T. Dey, College of William and Mary

B. Case, Elite Sport Marketing

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Agha and Rascher (2012), at the 2012 NASSM Conference, pointed out that smaller sporting events may have a greater positive economic impact on host communities than large mega sporting events. The economic impact of sporting events has been extensively studied for a number of years (Baade & Matheson, 2000; Baade & Matheson, 2001; Baade, Bauman & Matheson, 2008; Crompton & Lee, 2000). Local communities generally welcome the economic benefits associated with attracting out-of-town sporting event participants and spectators to a region.

Hotels, restaurants, and tourist attractions receive economic benefits when participants and spectators travel from out-of-town to attend a sporting event. Running events such as marathons and half-marathons tend to attract many out-of-town visitors who infuse "new" money into the local economy of the host community. An assessment of the economic impact associated with sporting events is important for local and regional government officials as the events often rely, in part, on public funding. Analyzing the economic impact of sporting events requires an accurate assessment of out-of-town visitor spending (Crompton, Lee & Shuster, 2001).

According to Eschenfelder and Li (2007), a number of methods have been used over the years to collect direct spending and economic impact data. They list on-site interviews, telephone interviews, self-administered surveys, on-site self drop-off surveys, mail surveys, expenditure logs or diaries, and the review of post event expenditure and tax records. However, two survey methods are used more often than the others. The first survey method is the "in person" survey that is administered during the sporting event. The second type of survey method is the online survey that is often administered after the event. Couper (2000) notes that post event surveys are typically favored, as they are convenient, and usually result in adequate sample sizes which helps to minimize bias. Delpy and Li (1998) report that a large number of sport economic impact surveys are still being conducted "in person" during sporting events while using mall intercept survey data collection methods.

A number of studies (Agha, 2011; de Leeuw, 1992; Dillman, Sangster, Tarnai & Rockwood, 1996; Hochstim, 1967; Matheson, 2006; Sax, Gilmartin & Bryant, 2001; Schuman & Presser, 1981; Schwartz, Strack, Hippler & Bishop, 1991; Seaman, 2004) have analyzed the effects that different survey methodologies have on the quantity and quality of data that is collected. Dillman and Bowker (2001), for example, found that using an online survey approach has the potential to increase the number of survey respondents. Hochstim (1967) has stated that survey respondents are more likely to give socially acceptable answers when completing surveys in the presence of an interviewer. Mann and Steward (2000) point out that online survey methods offer a number of advantages when compared to other survey methods as they allow for greater respondent reach by collapsing boundaries of time and space. Miller and Hogg (2000) discovered that online survey respondents are likely to respond to sensitive questions more often than telephone survey respondents. In one of the few studies completed in a sport setting that examined differences in survey methods, Olberding and Cobb (2007) reported that online survey approaches are at least as effective as telephone methods when the respondents have some degree of computer literacy. Dolnicar, Laesser and Matus (2009) stated that online survey respondents have a lower dropout rate and produce less incomplete data when compared to traditional paper surveys that are mailed to potential respondents. They indicate that survey format can influence the results and that multi-method survey approaches should be used whenever possible.

The purpose of this study was to examine differences between "in person" during event and "online" post event participant direct spending at a large regional half-marathon event located in the mid-Atlantic region of the United States. To date, a review of the literature reveals that no sport study has examined "in person" during event and "online" post event direct spending figures involving the same participants for the same sporting event.

A 26-question sporting event direct spending survey instrument was used in this study. Over the years, a number of experts who conduct direct spending and economic impact studies have reviewed the survey instrument and

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provided feedback that has been used to refine the instrument. The instrument includes a variety of questions that are aimed at direct spending and economic impact information. Additional questions on the survey instrument are used to collect demographic information. Eight specific categories of direct spending associated with a running event were measured. The types of questions on the survey instrument range from questions about spending on lodging and retail shopping to questions about food and beverage expenditures.

After random selection, a total of fifty event participants completed the direct spending survey instrument "in person" during the event and online after the event. More specifically, subjects were asked to complete the post event survey three days after the conclusion of the event in order to allow time for event participants to return home and review their spending records.

Data for this study has been collected (October, 2012) and it is currently being analyzed. Group averages will be calculated for selected variables including respondent's age, length of stay, number of rooms used per night, travel party size, etc. Frequency distributions and percentages will be calculated for selected variables including gender, education level, family income, etc.

This study also includes seven dependent variables (Q2-Q8), so both multivariate analysis (MANOVA) for the mean vectors and univariate analysis (ANOVA) for the mean responses for each question will be applied to the data set. Once the hypothesis of equality of the mean vectors is rejected, a univariate test will be run to determine which question has a difference.

Hypothesis testing will include the following:

A. Test for the equality of mean spending vectors per party (during and post event) for the two survey methods

H0: Mean spending vectors during and post event survey are equal
vs. H1: Mean vectors are not equal

Assumption of independence equality of variance and normality will be tested. The Wilks' Lambda test statistic, Pillai's trace criterion, Hotelling-Lawley trace, and Roy's Greatest Root test statistics will be run to determine if the null hypothesis is accepted or rejected at the .05 level of significance.

B. Test for the equality of mean spending per party during and post event survey for each of the seven questions

H0: The mean spending during and post event survey at Question i are equal
vs. H1: The means at Question i are not equal where $i = 2,3,4,5,6,7,8$

The F-test statistic will be run at the family wise .05 confidence level and assumptions of normality/equality of variance of spending for during and post event survey will be verified.

Results of the several analyses will show whether there are significant differences in direct spending between the "in person" (during event) and the "online" (post event) survey data collection methods. In the future, studies like the present study will likely aid in identifying the best research method to use in order to collect the most accurate data for direct spending and economic impact studies. Since most sport economic impact studies are still being conducted in person" during the events (Delpy & Li, 1998), this study may provide additional evidence that the online (post event) survey data collection method is the most accurate method to use. The final results of this study may help to change the way that many future economic impact researchers conduct their studies.

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